

REMARKS

The applicant has received the office action of December 4, 2002 wherein the office rejected claims 1-12 on the Hanson Patent 5,494,378 under 35 U.S.C. 103. The applicant submits the rejection of claims 1-12 under 35 U. S.C. 103 based on Hanson is in error since the applicant's invention is not obvious based on the teachings of Hanson.

The office also objected to claim 10 because it was of similar scope to claim 7. The applicant agrees and has amended claim 10 to be dependent on claim 8 thereby eliminating the similarity of scope between claims 7 and 10.

Briefly, the office stated that Hanson does not disclose "said elongated member composed of a flexible resilient polymer plastic, wherein said polymer plastic is polycarbonate and a triangular shaped elongated member" (page 6 second paragraph). Applicant agrees that Hanson does not disclose such features. However, the real issue is whether it would have been obvious to one in the art of Marker Posts to look to the Piling art to solve a problem on how to prevent withdrawal of Marking Posts from the ground while still providing a Marking Post that can be stacked for shipping. The applicant contends it would not based on the nature of the two arts as well as the use and purpose of the Pilings as opposed to the different use and different purpose of the Marking Posts. Applicant was faced with the problem of stacking his posts for shipping. In order to conveniently stack the posts for shipping it is desirable not to have any protrusions on the side of the post. Applicant solved the problem by using resilient

material that supports a living hinge and which has “sufficient memory to stay in the open position until the post can be embedded” (claim 8 last line).

The applicant submits that in addition to the structural differences acknowledged by the office, the applicant’s claims contain other features not found in Hanson and that as to the issue of obviousness it is submitted that both the use and purpose of the Hanson piling must be considered as well as the use and purpose of the applicant’s Marker Post since the use and purpose of the Hanson Pilings are entirely different and contrary to the use and purpose of applicant’s Marker Post.

In regard to the use, Hanson provides a below ground piling, which is used to support a “building or similar housing structures” (column 1 line 8) while applicant does not provide a piling that is used to support a building or similar housing structure. Applicant provides an above ground marker that is used to alert people to the presence of an underground utility line.

In regard to the purpose, Hanson explains in column 1 lines 12-14 that in certain areas the “soil does not have the desired consistency to alone support the weight of such structures” Thus the purpose of the Hanson piling is to provide additional support for an above ground load. In other words, Hanson has a problem with his piling not being able to support a load while the purpose of applicant’s Marker Post is not to provide additional support for an above ground load. In contrast the purpose of applicant’s invention is not

to provide additional support for an above ground load but to prevent withdrawal of the marking post from the soil while having a post that can be easily stacked for shipping.

Hanson goes on to explain that there are two forces used to support his piling “the friction forces applied to the vertical walls of his piling” and the “upward force applied to the bottom face of the piling (the end force). (Column 1 lines 21-24) Hanson then explains that “Because the friction force applied to a typical piling is much less than the requisite amount of support a structure requires, the end force must therefore supply the difference.”(emphasis added) (Column 3 lines 23-28) Note, the end force of the Hanson Piling is supplied by his “conical driving penetration point 20” (Figure 2) which extends across the bottom of his piling and closes off the end of his piling.

Hanson provides a piling for an above ground building that weighs “many tons” while the applicant’s provide a Marker Post, not to support “many tons” but a Marker Post that is resistant to withdrawal from the ground due to acts of vandalism or storms. More specifically, on Page 2 lines 8-9 applicant states “Marker posts are used to place as an above ground warning that an underground pipe or electric line is buried in the soil” (emphasis added)

Thus, the use and the purpose of the Hanson “piling” and the use and purpose of applicants “Marker Post” are not only different but teach in opposite directions since Hanson’s piling is used to support an above ground building whereas applicant Marker post is used to mark the existence of a below ground utility line and while Hanson’s

needs to provide additional support for an above ground building and thus wants to prevent his piling from sinking, applicant's purpose is to the contrary, namely, to prevent withdrawal of the Marker Post due to vandalism or storm damage.

A further review of Hanson shows that to obtain the necessary "end support" he requires a "conical driving penetration point 20" on the bottom end 15 of piling which he points out is "welded into position" (column 4 line 38) thus closing the end of his piling. In contrast, applicant teaches a Marker Post which does not have a "conical driving penetration point 20" welded into position. Amended claim 8 now specifically points out that the applicant has an open end on his Marker Post, a feature that would defeat the critical "end support" requirement of the Hanson piling.

It is clear that Hanson and Applicant are concerned with opposite forces. Hanson is concerned with the downward forces on his Piling while applicants is the exact opposite, namely the upward forces acting on his Marker Post.

In addition, the Hanson piling is inoperable unless he places "charges 22 on the inside of his fingers since he requires the detonation of his explosive charges to bend his fingers outward with sufficient force to exceed the elastic limit of his metal. In contrast, applicant requires no explosive charges to position his anchoring flaps, since applicant uses a living hinge, which does not require one to exceed the elastic limits of the material. Thus the teaching of the Hanson patent and the teachings of applicant's

invention are in opposite directions since Hanson requires explosive charges as an integral part of his piling and applicant does not require explosive charges.

For the above reasons it is submitted that the applicant's Marker Post of claims 1-12 is not obvious in view of the Hanson piling having integral explosive charges. It is further submitted that one seeking to solve the problem of Marker post withdrawal would not look to the Piling art, much less to art that teaches one that explosives are needed to obtain additional support for a piling.

While the office has taken the position regarding claims 1, 3, 8 and 9 that the intended use of applicant's Apparatus determines "the particular type of materials used to make the elongate member, absent any critically, is only considered to be the use of a 'preferred' or 'optimum' material out of a plurality of well known materials..." Applicant submits that not only are there are two different and distinct arts, namely the Piling art and the Marker Post art. The criticality of the materials is taught by Hanson who teaches one that the elastic limit of his material needs to be exceeded. Applicant points out the contrary, namely, that the elastic limit of his material does not have to be exceeded.

Applicant further submits that it is a tortuous path to proceed from the Piling Art to the Marker Post art and that it would not be obvious to one in the art of making Marker Posts that extend above ground to caution a person on the existence of an underground power line to first have to look to a different art namely, the Building art, and then, secondly, to the Piling art used in the building art and then, thirdly, to modifications the Piling art to

come up with a solution to a problem not even present in the Piling Art, namely retentions of Marker Posts due to vandalism.

While the office has also stated that the use or type of materials as being obvious. Applicant disagrees, if Hanson is considered prior art to provide the teaching of anchoring fingers, then Hanson teaches the critical need for metals that can be bent beyond "the elastic limit of the pipe metal thereby placing a permanent set in the respective necks and locking the tabs 14 in their extended position shown in Figures 6 and Figures 7" Column 3 lines 19-22). In contrast, applicant points out that the Marker Post can be made from a "flexibly resilient polymer" which can support a "living hinge" which does not require that the elastic limit of the material be exceeded in order to provide anchoring flaps. Thus, Hanson specifically teaches away from using such material that can be repeatedly bent without breaking or exceeding the elastic limit of the material by pointing out that one needs to exceed the elastic limit to bend his fingers into position.

While the office took the position that all the uncited art showed a living hinge the applicant submits such is in error. For example, a review of Ashworth patent 3,286,416 fails to find any reference to a "living hinge". It is submitted that because a material can be bent does not teach that it is a living hinge. Accordingly the applicant submits the rejection is in error.

In order to further bring out the differences between the Hanson piling and the present invention claim 8 has been amended to point out the applicants triangular post has a first open end and a second open end as illustrated by the top view shown in Figure 3. This feature is in direct contrast to Hanson who requires a bottom support that extends across the end of his piling to provide end support for the above ground load on his piling. In fact, the reason for the Hanson invention is that the end support is insufficient to support the weight of a building on his piling. It is submitted that the teaching of applicant claim 8 and its dependent claims is exactly opposite to the teaching of Hanson.

In regard to the rejections of dependent claim 4 the office states that Hanson discloses a non-tapered exterior surface. Applicant submits that while Hanson discloses “tubular piling pipe” he does not state that it has a “non tapered exterior surface”.

In regard to claim 6, the office states that Hanson discloses a weather cap. Applicant submits that Hanson discloses a driving collar 26 and a driving cap 16 for driving his piling into the ground. Hanson does not disclose a weather cap to prevent rain or snow from entering his piling.

In summary, Hanson seeks to address the problem of downward forces on his piling while applicant seeks to solve problems of upward forces on his Marker Post. Hanson makes his piling more difficult to ship because they contain explosives while applicant makes his Marker Post easier to ship since the Marker Posts can be conveniently stacked.

VERSION OF CLAIMS WITH MARKINGS TO SHOW CHANGES MADE

8. (Twice Amended) A hollow anchoring marker post comprising:
 - a. a triangular shaped elongated member having a first panel, a second panel, and a third panel forming the elongated member, said elongated member composed of a flexibly resilient polymer plastic, said triangular shaped elongated member having a first open end and a second open end;
 - b. a first anchoring flap, a second anchoring flap, and a third anchoring flap, each of said anchoring flaps having a first end and a second end, each of said anchoring flaps integrally connected to said elongated member, each of said anchoring flaps located proximate a second end of said elongated member; and
 - c. a first flexible living hinge, a second flexible living hinge, and a third flexible living hinge; the second end of said first anchoring flap attached to the first panel of said elongated member by said first flexible living hinge, the second end of said second anchoring flap attached to the second panel of said elongated member by said second flexible living hinge, the second end of said third anchoring flap attached to the third panel of said elongated member by said third flexible living hinge, each of said anchoring flaps moveable from a first closed position to facilitate the handling and transportation of said marker post to a second open position to prevent the withdrawal of said elongated member from an embedded position whereby

the flaps has a sufficient memory to stay in the open position until the post can be embedded.

9. (Amended) The hollow one piece anchoring marker post of claim [7] 8 wherein said polymer plastic is polycarbonate or polyethylene.

10. (Amended) The hollow one piece anchoring marker post of claim [7] 8 wherein said elongated member is sufficiently stiff to permit the marker post to be driven into a top layer of soil.

Accordingly, it is submitted that claims 1-12 are in allowable form and a notice of allowance is respectfully requested.

Respectfully submitted,
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